REMARKS

The present application includes pending claims 1-29, of which, claims 1-12, and 14-29 have been rejected. Claim 13 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. By this Amendment, claims 1, 17, and 23 have been amended as set forth above. The Applicant respectfully submits that the claims define patentable subject matter.

Initially, the Applicants note that a goal of patent examination is to provide a prompt and complete examination of a patent application.

> It is essential that patent applicants obtain a prompt yet complete examination of their applications. Under the principles of compact prosecution, each claim should be reviewed for compliance with every statutory requirement for patentability in the *initial review* of the application, even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, Office personnel *should* state *all* reasons and bases for rejecting claims in the *first* Office action. Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, Office personnel should indicate how rejections may be overcome and how problems may be resolved. A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

Manual of Patent Examining Procedure (MPEP) § 2106(II). As such, the Applicants assume, based on the goals of patent examination noted above, that the **present** Office Action has set forth "all reasons and bases" for rejecting the claims.

Claims 23-29 were objected to because of an informality. The Applicant has amended claim 23 as set forth above to overcome this informality.

Claims 1-22 were rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. In particular, the Office Action alleges that the "omitted steps are: Step (c) in claim 1 is not related to steps (a) or (b). The step of managing in claim 17 is not related to the step of parsing and processing." *See* November 22, 2005 Office Action at page 2. The Applicant has amended claims 1 and 17 to overcome this rejection. Namely, the claims now recite that the holes result from the out-of-order frame. Thus, the Applicant respectfully requests reconsideration of this rejection.

Claims 1, 4-12, and 14-22 remain rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Application Publication 2002/0034182 ("Mallory"). Claims 2-3 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Mallory in view of Hayes. Claims 23-29 now stand rejected under 35 U.S.C. 103(a) as being unpatentable over Mallory in view of Hayes and admitted prior art (APA). The Applicant respectfully traverses these rejections at least for the reasons previously set forth during prosecution and the following:

I Mallory Does Not Anticipate Claims 1, 4-12, and 14-22

Mallory "relates to communications systems in general and, more specifically, to methods and apparatus for reducing data loss on a network with an unreliable physical layer." *See* Mallory at ¶ [0001].

Claim 1 recites, in part, "placing data of the out-of-order frame in a **host** memory," while claim 17 recites, in part, "processing at least one of the control information, the data information and context information to determine a buffer location in **a host memory**...." The Office Action states the following:

> ... Mallory clearly teaches in paragraph 0011 that the receiver buffers the out-of-order frame in a receiver buffer and in paragraph 0060 Mallory teaches that if they are out-of-order ... buffer frames following a gap for a time **in a reorder buffer**.

See November 22, 2005 Office Action at page 8 (emphasis in original).

Notably, the Office Action only asserts that Mallory teaches placing the frame in a "reorder buffer," but not a **host memory**, as recited in the claims 1 and 17. In particular, the Office Action relies on ¶ [0011] of Mallory, which states the following:

> In some specific embodiments, the sender transmits the transmitted frame to more than one receiver, such as in a multicast or broadcast mode. The frame identifiers can be a set of sequential integers with frames transmitted in sequential frame order. In some embodiments, when a receiver receives a frame out of order, the receiver buffers the out of order frame in a receiver buffer for a receive buffer period until preceding frame are received or the receive buffer period expires.

See Mallory at ¶ [0011]. Mallory only states that the frame out of order may be buffered in a **receiver buffer**. Mallory, however, does not teach, nor suggest, that the receiver buffer is, or within, a **host memory**.

Further, paragraph [0060] of Mallory recites the following:

> If the next higher layer does not require frames to be delivered in order, the LARQ handler will pass up

> frames as they are received, rather than storing the out of order frames. However, where the next higher layer requires frames in order, or assumes the loss of frames if they are out of order, the LARQ handler should be configured to buffer frames following a gap for a time in a reorder buffer so that if the receiver can fill the gap with retransmitted frames in time, the frames can be passed to the next layer in sequence order.

Similar to ¶ [0011] of Mallory, this paragraph merely discloses that out-of-order frames may be stored in a buffer, but does not teach or suggest "placing data of the out-of-rder frame in a **host** memory," that the buffer is in a host memory, or "managing information relating to one or more holes in a receive window."

The Office Action also states the following:

> Also in paragraph 0060, Mallory teaches "**managing** information relating to one or more holes (gap) in a receive window by buffering frames following a gap (hole) for a time in a reorder buffer so that if the receiver can fill the gap with retransmitted frames in time, the frames can be passed to the next layer in sequence order. In paragraph 0141, Mallory further teaches of managing including updating the sequence number.

See November 22, 2005 Office Action at pages 8-9 (emphais in original). With respect to ¶ [0060] of Mallory, shown above, there is simply nothing in that passage that relates to a "receive window," and certainly not "managing information relating to one or more holes in a receive window." That passage merely discloses a LARQ handler, but does not teach or suggest a "receive window," or "managing informaiton relating to one or more holes in a receive window." If the rejection is maintained, the Applicant respectfully requests an

exact quotation and pinpoint citation to where such limitations are disclosed in ¶ [0060].

Additionally, the Office Action continues to rely on ¶ [0140] of Mallory. Mallory, at ¶ [0140] states the following:

> If a received frame's sequence number (not a Nack control frame) is new and within a window of MaxRxSaveCountChannel from Receive Sequence Number, the receiver will update its state by advancing the window of recent sequence numbers until the received frame's sequence number is current. If the received frame's new sequence number was outside of the valid sequence numbers, the sequence number should have been treated as out-of-sequence, and the channel reset function performed so that the new frame will be in-sequence.

This portion of Mallory merely states that a frame's sequence number may be within a window of MaxRxSaveCountChannel. While the "receiver will update its state by advancing the window of recent sequence numbers until the received frame's sequence number is current," this portion of Mallory does not teach, nor suggest, "placing data of the out-of-rder frame in a **host memory**," or "**managing information relating to one or more holes in a receive window**," as recited in claim 1, nor "determin[ing] a buffer location in a **host memory** in which to place the data information," or "managing receive window hole information," as recited in claim 17. Instead, this portion of Mallory merely discloses that windows are advanced based on their sequence numbers.

The Office Action also continues to rely on ¶ [0141] of Mallory to reject claims 1 and 17. *See* November 22, 2005 Office Action at pages 3-5. This paragraph, however, states the following:

> The Receive Sequence Number is repeatedly incremented by 1 (modulo 256, or other size of the sequence space) until it is equal to the received frame's sequence number. Each time it is updated, the state of the new current sequence number is initialized as missing and the time when it was first missed is recorded, unless the current number is that of the receive frame and the receive frame was a valid data frame (not a reminder and not errored). **If the frame is marked received, it is also saved,** possibly temporarily. For each new sequence number, **the trailing edge of the sliding window of recent sequence numbers also changes**. The new oldest recent sequence number is checked to see there is a held frame. If there is a saved frame (Rx Frame Flag=1), that frame is sent up to next higher layer and Rx Frame Flag is set to 0. When the current sequence number has been fully updated to the received sequence number, the receiver then scans the history of recent frames, starting with the oldest sequence number not yet lost or sent up. If that sequence number has a held frame, then that frame and any in-sequence held frames that follow it are sent up to the next higher layer. This will result in the just-received frame to be sent up to the next higher layer, if appropriate.

Mallory at ¶ [0141]. This portion of Mallory merely discloses that sequence numbers are repeatedly incremented, and that received frames are saved. While "trailing edges of sliding windows of recent sequence numbers also change," there is nothing in this portion of Mallory that teaches or suggests "placing data of the out-of-order frame in a **host memory**," "managing information relating to one or more holes in a **receive window**," as recited in claim 1, nor "managing receive window hole information," as recited in claim 17. The Applicants respectfully submit that a change in the sequence number of a sliding window is

by no means "managing information relating to one or more holes in a receive window," or "managing receive window hole information."

In short, while these portions of Mallory disclose that certain frames may be saved, they do not teach, nor suggest, "placing data of the out-of-order frame in a **host memory**," "managing information relating to one or more holes in a **receive window**," as recited in claim 1, nor "managing receive window hole information," as recited in claim 17. Thus, at least for this reason, the Applicant respectfully submits that Mallory does not anticipate claims 1, 4-12, and 14-22, and that the Office Action has not established a *prima facie* case of obviousness with respect to these claims.

II. The Combination Of Mallory And Hayes Does Not Render Claims 2-3 Unpatentable

The Applicant now turns to the rejection of claims 2-3 as being unpatentable over Mallory in view of Hayes. The Applicant respectfully submits that these claims should be in condition for allowance at least for the reasons discussed above.

III. The Proposed Combination Of Mallory In View Of Hayes And APA Does Not Render Claims 23-29 Unpatentable

The Applicant now turns to the rejection of claims 23-29 as being unpatentable over Mallory in view of Hayes and APA. Claim 23 recites, in part, "wherein the network subsystem places data of the out-of-order frame in a **host** memory," and "wherein the network subsystem manages information relating to one or more holes in a receive window." The proposed combination does not teach or suggest these limitations. Thus, at least for these reasons, the

Applicant respectfully submits that claims 23-29 should be in condition for allowance.

IV. Conclusion

The Applicant respectfully submits that the claims of the present application should be in condition for allowance at least for the reasons discussed above and requests that the outstanding rejections be reconsidered and withdrawn. If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited to contact the Applicant. The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

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